



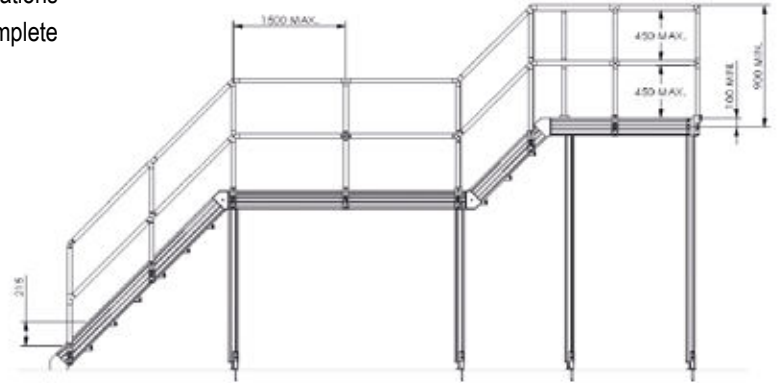
# STAIR & PLATFORM SYSTEM



## STAIR & PLATFORM SYSTEM (SPS)

The SPS is suitable for many indoor and outdoor applications from the simplest railings and pedestrian control to complete stairs and working platforms without any extra machining. All components are completely weld free connections.

- A staircase must have at least one handrail.
- Maximum permitted load of each step is, (for a length of 1200mm ) 150kg.
- Maximum permitted distance between each vertical post is 1500mm.
- Do not exceed 450mm between each guard rail
- Maximum height of guard rail is 1100mm.



## STRUT PROFILES

Extruded Aluminium profile as per GB5237-2008, satin anodised surface, coat thickness min ≥ 11µ. Standard length of delivery profiles are 5800mm.

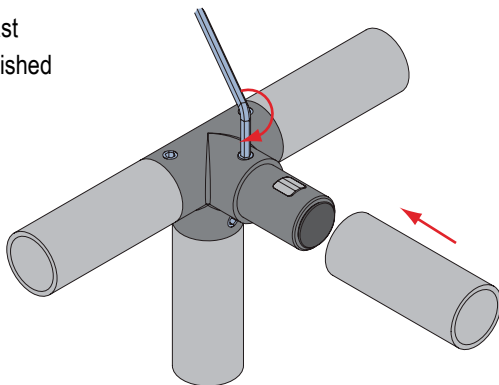
For deflection calculation, refer to formulas as below:

- F (mm): Deflection
- F (N): Type of load
- L (mm): Profile length
- I (cm<sup>4</sup>): Moment of inertia
- E (N/mm<sup>2</sup>): Modular of elasticity

## HANDRAIL CONNECTORS

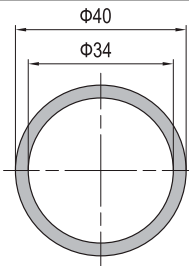
Handrail Connectors use an internal locking system to connect the tubes. No machining or drilling is required.

Material: diecast aluminium, polished surface finish.



1		$f = \frac{F \cdot L^3}{3E \cdot I \cdot 10^4}$
2		$f = \frac{F \cdot L^3 + F_1 \cdot L_1^2 \cdot L + F_2 \cdot L_2^2 \cdot L}{3E \cdot I \cdot 10^4}$
3		$f = \frac{F \cdot L^3}{8E \cdot I \cdot 10^4}$
4		$f = \frac{F \cdot L^3}{48E \cdot I \cdot 10^4}$
5		$f = \frac{F \cdot L^3}{\left(48 + \frac{29m}{L}\right) \cdot E \cdot I \cdot 10^4}$
6		$f = \frac{5F \cdot L^3}{384E \cdot I \cdot 10^4}$
7		$f = \frac{F \cdot a^2 \cdot b^2}{3E \cdot I \cdot 10^4 \cdot L}$
8		$f = \frac{F \cdot L^3}{192E \cdot I \cdot 10^4}$
9		$f = \frac{F \cdot L^3}{384E \cdot I \cdot 10^4}$

## ALUMINIUM TUBE



Part No.	Description	Moment of Inertia Ix(cm <sup>4</sup> )	Moment of Inertia Iy(cm <sup>4</sup> )	Moment of Resistance Wx(cm <sup>3</sup> )	Moment of Resistance Wy(cm <sup>3</sup> )	Mass (kg/m)
1.04.T.SPS	Aluminium Tube Ø40 x 3	6.0	6.0	3.0	3.0	1.0

## V CONNECTOR



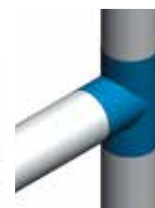
Description	Mass (g)	Part No.
V Connector	550	8.40V.SPS

## L CONNECTOR



Description	Mass (g)	Part No.
L Connector	518	8.40L.SPS

## T CONNECTOR



Description	Mass (g)	Part No.
T Connector	728	8.40T.SPS

## 45°L CONNECTOR (LEFT)



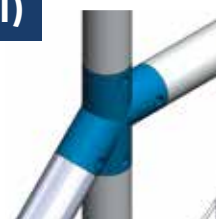
Description	Mass (g)	Part No.
45°L Connector (L)	728	8.4045L.L.SPS

## 45°L CONNECTOR (RIGHT)



Description	Mass (g)	Part No.
45°L Connector (R)	728	8.4045L.R.SPS

## 45°T CONNECTOR (LEFT)



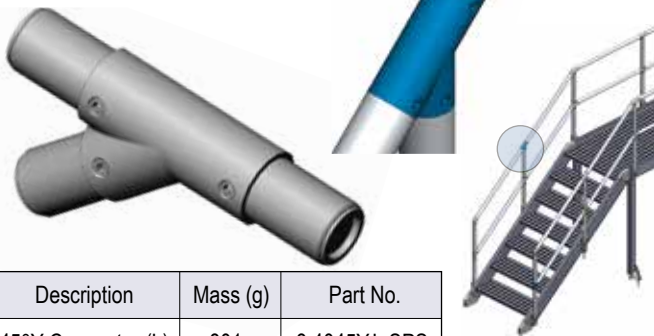
Description	Mass (g)	Part No.
45°T Connector (L)	1037	8.4045T.L.SPS

## 45°T CONNECTOR (RIGHT)



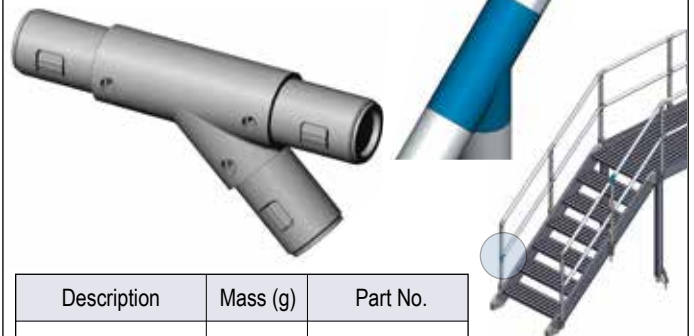
Description	Mass (g)	Part No.
45°T Connector (R)	1037	8.4045T.R.SPS

## 45°Y CONNECTOR (LEFT)



Description	Mass (g)	Part No.
45°Y Connector (L)	801	8.4045Y.L.SPS

## 45°Y CONNECTOR (RIGHT)



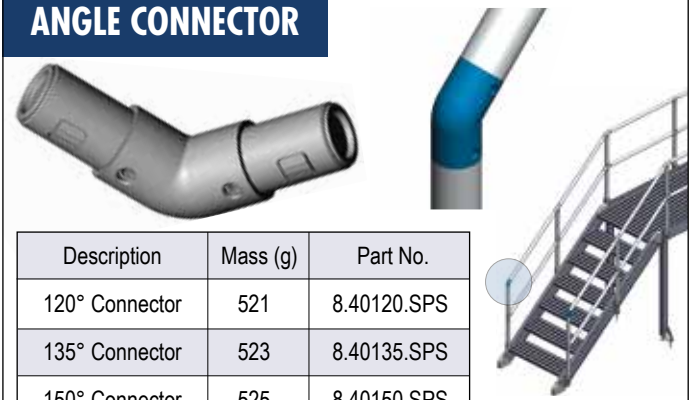
Description	Mass (g)	Part No.
45°Y Connector (R)	801	8.4045Y.R.SPS

## X CONNECTOR



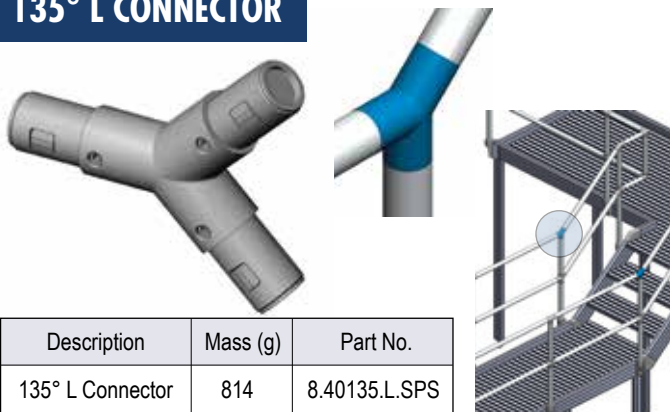
Description	Mass (g)	Part No.
X Connector	1012	8.40X.SPS

## ANGLE CONNECTOR



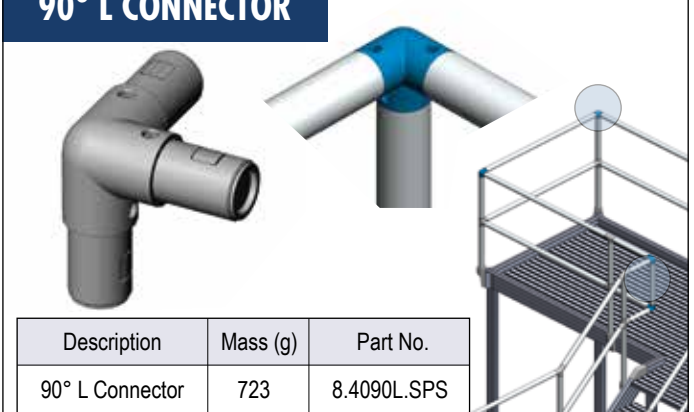
Description	Mass (g)	Part No.
120° Connector	521	8.40120.SPS
135° Connector	523	8.40135.SPS
150° Connector	525	8.40150.SPS

## 135° L CONNECTOR



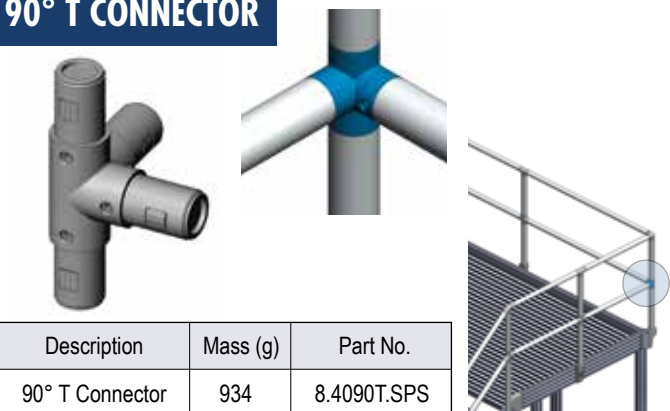
Description	Mass (g)	Part No.
135° L Connector	814	8.40135.L.SPS

## 90° L CONNECTOR



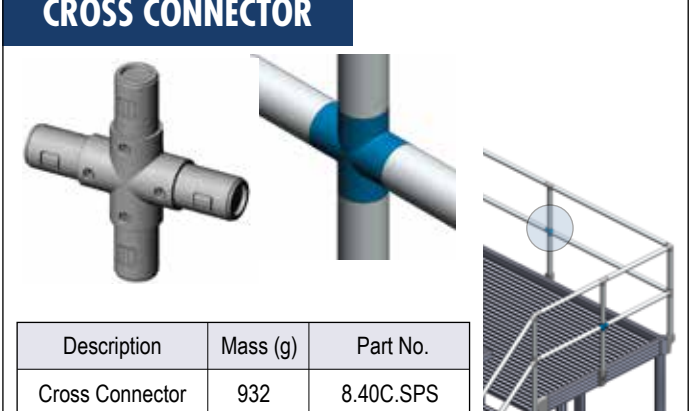
Description	Mass (g)	Part No.
90° L Connector	723	8.4090L.SPS

## 90° T CONNECTOR



Description	Mass (g)	Part No.
90° T Connector	934	8.4090T.SPS

## CROSS CONNECTOR



Description	Mass (g)	Part No.
Cross Connector	932	8.40C.SPS



<b>CT FASTENING SET</b>  M8 x 20 Bolt Zinc Plated  M8 Spring Washer Zinc Plated	<b>CR FASTENING SET</b>  M8 x 30 Bolt Zinc Plated  M8 Spring Washer Zinc Plated	<b>HQ FASTENING SET</b>  M8 x 30 Bolt Zinc Plated  M8 Spring Washer Zinc Plated  M8 T Nut Nickel Plated	<b>GB FASTENING SET</b>  M8 x 16 Bolt Zinc Plated  M8 Washer Zinc Plated  M8 Spring Washer Zinc Plated  M8 T Nut Nickel Plated	<b>PD FASTENING SET</b>  M8 x 40 Bolt Zinc Plated  M6 Spring Washer Zinc Plated	<b>HN FASTENING SET</b>  M8 x 16 Bolt Zinc Plated
<b>HM FASTENING SET</b>  M8 x 20 Bolt Zinc Plated  M14 → M8 Hole Reducer Bolt Nickel Plated	<b>GC FASTENING SET</b>  M8 x 20 Bolt Zinc Plated  M8 T Nut Nickel Plated	<b>PE FASTENING SET</b>  M5 x 12 Bolt Zinc Plated	<b>C FASTENING SET</b>  M8 Flange Nut Zinc Plated  M8 x 20 T Bolt Nickel Plated	<b>AA FASTENING SET</b>  M8 x 16 Expansion Bolt Zinc Plated	For more information on our wide range of products  <b>Call 0800 00 28 32</b> or visit our website <b>www.slotpro.nz</b>

**ROUND BASE** Material: Diecast aluminium, polished surface finish. Fastening set: 3 x CT.

Description	Mass (g)	Part No.
Round Base	635	8.40.RB.SPS

**T BASE** Material: Diecast aluminium, polished surface finish. Fastening set: 2 x CT.

Description	Mass (g)	Part No.
T Base	491	8.40.TB.SPS

**SIDE BASE** Material: Diecast aluminium, polished surface finish. Fastening set: (pcs) 2 x CR (set) 2 x HQ.

Description	Mass (g)	Part No.
Side Base (pcs)	781	8.40.SB.SPS
Side Base (set)	813	8.40.SBS.SPS

**ANGLE PLATE** Material: Diecast aluminium. Fastening set: 8 x GB.

Description	Mass (g)	Part No.
Angle Plate	920	8.AP40.SPS

**CLAMP A** Material: Diecast aluminium. Fastening set: 1 x HQ.

Description	Mass (g)	Part No.
Clamp A	52	8.CL40.A.SPS

**CLAMP B** Material: Diecast aluminium. Fastening set: 1 x PD, 1 x HQ.

Description	Mass (g)	Part No.
Clamp B	70	8.CL40.B.SPS

## ADJUSTABLE FOOT

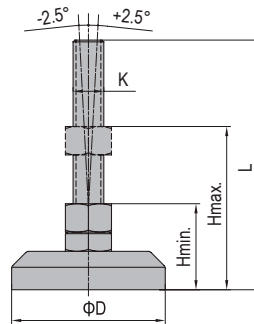
Used to support platforms on uneven surfaces.  
Material: Nylon PA, glass ball reinforced. Spindle, stainless steel.



6.04.SPAF100



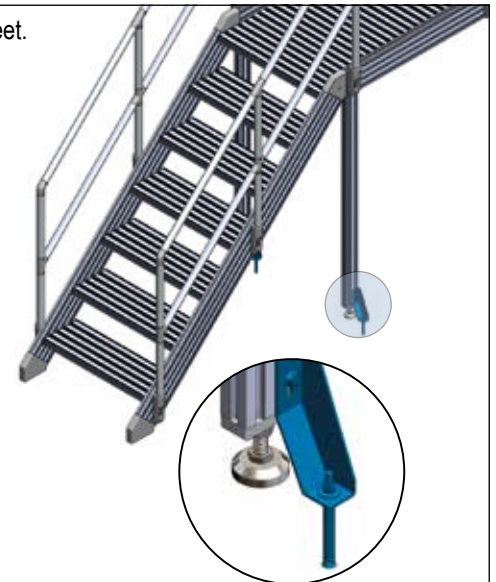
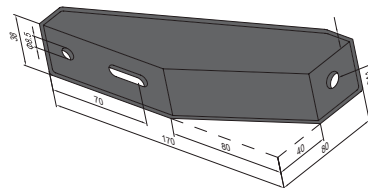
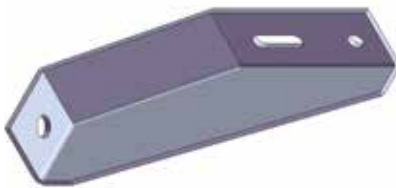
6.04.SPAF80



Part No.	Description	D (mm)	KxL (mm)	H min (mm)	H max (mm)	Max Static Load (kg)	Mass (g)
6.04.SPAF100	Articulated Foot M16 x 100 304, Stainless Steel	100	M16 x 100	50	100	1500	300
6.04.SPAF80	Articulated Foot M10 x 80 304, Stainless Steel	100	M10 x 80	50	100	1000	140

## BASE ANGLE

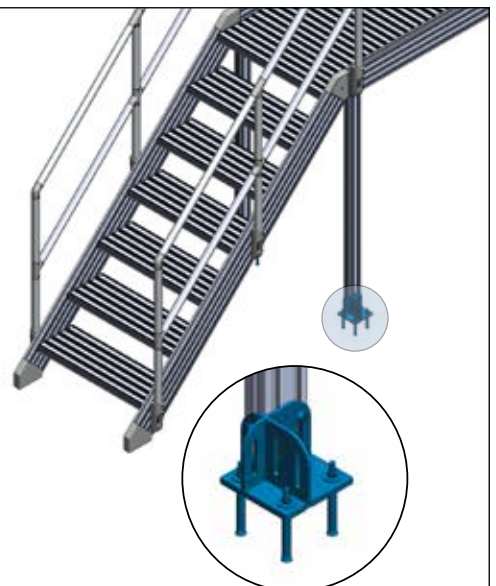
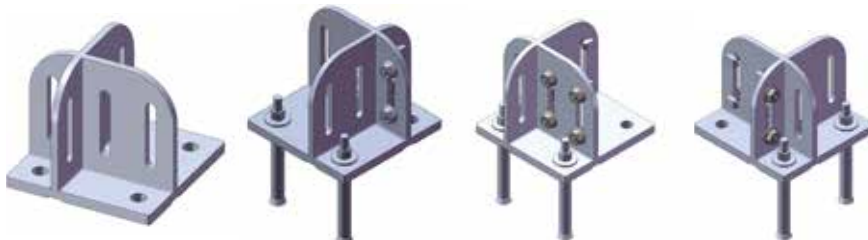
Provides additional stability when used with adjustable feet.  
Material: Black powder coated.



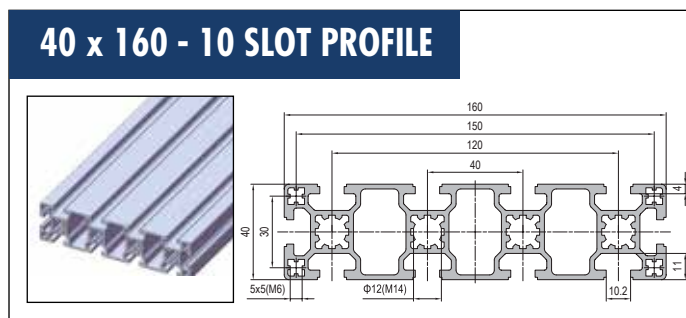
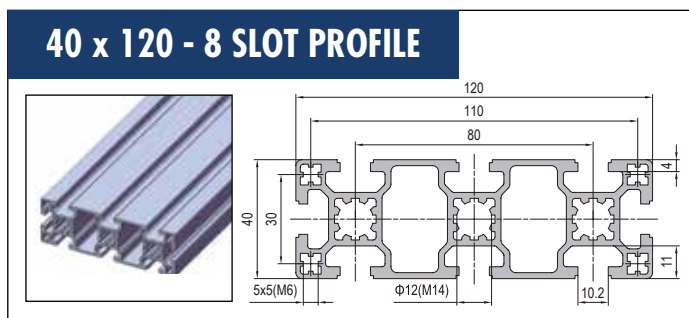
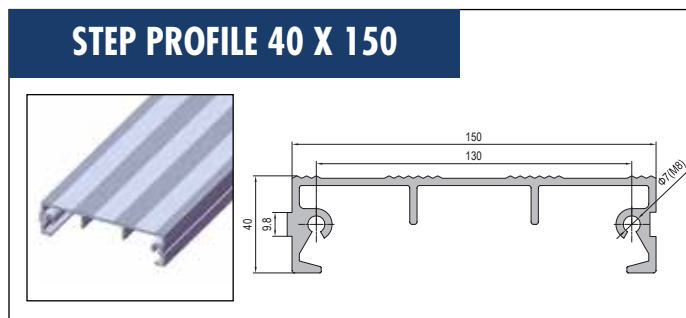
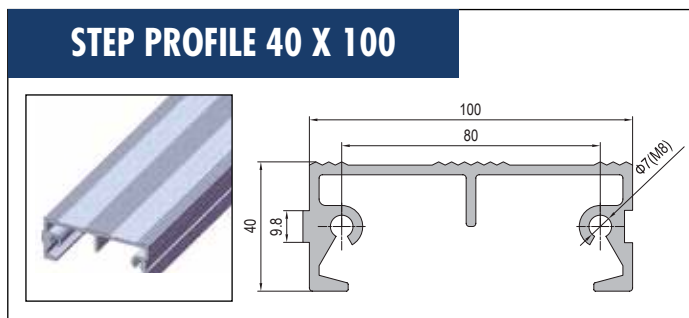
Part No.	Description	Mass (g)	Fastening Set
8.51.L.SPS	Base Angle L (pcs)	346	
8.51.L.ST.SPS	Base Angle L (set)	443	2xC + 1xAA
8.51.R.SPS	Base Angle R (pcs)	346	
8.51.R.ST.SPS	Base Angle R (set)	443	2xC + 1xAA
8.51.P.SPS	Base Angle L+R (pair)	692	

## BASE PLATE

Used to support profile for bolting platforms to the floor.  
Material: Diecast steel with surface corrosion protection.



Part No.	Description	Mass (g)	Fastening Set
8.4080.SPS	Base Plate 4080 (pcs)	1930	
8.4080.STA.SPS	Base Plate 4080 (set A)	2240	4xC + 3xAA
8.4080.STB.SPS	Base Plate 4080 (set B)	2290	6xC + 3AA
8.4080.STC.SPS	Base Plate 4080 (set C)	2340	8xC + 3xAA



Part No.	Description	Moment of Inertia $I_x(\text{cm}^4)$	Moment of Inertia $I_y(\text{cm}^4)$	Moment of Resistance $W_x(\text{cm}^3)$	Moment of Resistance $W_y(\text{cm}^3)$	Mass (kg/m)
1.0410.SPS	Step Profile 40 x 100	13.2	128.6	6.6	25.7	2.4
1.0415.SPS	Step Profile 40 x 150	15.4	342.0	7.7	45.6	2.9
1.0412.8.SPRS	40 x 120 - 8 Slot Profile	24.1	194.8	12.1	32.5	3.8
1.0416.10.SPRS	40 x 160 - 10 Slot Profile	31.6	435.7	15.8	54.5	4.8

### SIDE STAIR PLATE

Material: Diecast aluminium, polished surface finish.  
Fastening set: 6 x GB, 6 x HN.

Description	Mass (g)	Part No.
Side Stair Plate	492	8.SSP.SPS

### SIDE JOINT

Material: diecast aluminium, polished surface finish.

Part No.	Description	Connection	Mass (g)	Fastening Set
8.J40.30A.SPS	30° Stair Joint A	A	1135	8xHM + 1xPE
8.J40.30B.SPS	30° Stair Joint B	B	1010	4xHM + 1xPE
8.J40.30C.SPS	30° Stair Joint C	C	1147	4xHM + 4xGC + 1xPE
8.J40.45A.SPS	45° Stair Joint A	A	1044	8xHM + 1xPE
8.J40.45B.SPS	45° Stair Joint B	B	932	4xHM + 1xPE
8.J40.45C.SPS	45° Stair Joint C	C	1068	4xHM + 4xGC + 1xPE
8.J40.60A.SPS	60° Stair Joint A	A	1495	8xHM + 1xPE
8.J40.60B.SPS	60° Stair Joint B	B	1370	4xHM + 1xPE





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